



PATENT
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Anne SABBAGH et al.) Art Unit: 1609
Application No.: 10/825,154) Examiner: HOFFER, Susanna Marie
Filed: April 16, 2004)
For: HAIR TREATMENT PROCESS) Confirmation No.: 7840
FOR SMOOTHING THE HAIR)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

DECLARATION UNDER 37 C.F.R. § 1.132

I, Laurence PAUL, declare and state that:

1. I am a French citizen, residing at 48 rue de la Marée, 95320 Saint Leu La Foret, FRANCE.
2. I am currently employed by L'ORÉAL as an engineer. During my employment at L'ORÉAL, I have been engaged in research and development of permanent waving techniques..
3. I understand the rejections made in the Office Action of August 29, 2007 in Application 10/825,154.

4. Given my education and experience, particularly in the area of permanent waving technique, I consider myself able to provide the following testimony based on experiments conducted by me or under my direct supervisor.

COMPARATIVE TESTING

5. Comparative testing was performed by applying the following composition to human hair and submitting the hair to heat by a flat iron at 150°C (inventive) versus water steam at 100°C (comparative).

I. **Composition**

The following composition was prepared (amounts expressed as percentage by weight relative to the total weight of the composition):

Table I

Composition	Amount (wt %)
N-poly dihydrosphingosine (ceramide)	0.1
Octyl-2-dodecanol	2
Diethylenetriamine pentaacetic acid, pentasodium salt in 40 % aqueous solution	0.4
Cetyl stearyl alcohol (C ₁₆ /C ₁₈ 50/50)	8
Oxyethylenated cetyl alcohol (2 moles of ethylene oxide)	3
Cetyl trimethylammonium chloride in aqueous solution	4
Behenyl trimethylammonium chloride in solution in a mixture water/isopropanol	4
Cetyl palmitate	2
Diammonium dithiodiglycolate in 48 % aqueous solution	2.5
Ammonium thioglycolate in 71 % aqueous solution	8
Water qsp	100

II. Hair Treatment Process

6. The composition was applied onto two locks of human hair (weight: 2.7 grams; length: 20 cm) according to the following protocol:

- a) The two locks of hair were washed according to same protocol:
 - i) *Optimiseur Anti-Résidu* shampoo (*L'Oréal professionnel*) was applied;
 - ii) The locks of hair were mixed with the shampoo for 15 seconds;
 - iii) The locks of hair were rinsed with water under a flow rate of 300l/hr at 38°C for 5 seconds;
- b) The composition (5.4 grams) described herein was applied on both locks of hair;
- c) The composition was left on both locks of hair for 15 minutes.
- d) The locks of hair were rinsed with water under a flow rate of 300 l/h at 38°C for 15 seconds;
- e) The locks of hair were pre-dried with a hood hair dryer at 60°C for 10 minutes;
- f) A flat iron heated to 150°C was applied onto lock 1 four times;
- g) Water steam at 100°C was applied to lock 2 four times;
- h) A fixing agent (aqueous solution containing 2.4% by weight of hydrogen peroxide at pH 2.5) was applied to both locks and left on for 10 minutes;
- i) The locks of hair were rinsed with water under a flow rate of 300 l/hr at 38°C to remove the fixing agent;
- j) The locks of hair were dried with a hood hair dryer at 60°C for 20 minutes.

III. Tests

7. The smoothness of lock 1 and lock 2 was evaluated by 10 expert panelists. Each expert touched lock 1 and lock 2 from roots to tips and rated the smoothness of each on a scale of 0 to 5. 0 represents the smoothness of a non-treated lock, indicating that the smoothness of a non-treated lock is clearly uneven from roots to tips and therefore not soft. 5 represents the highest level of smoothness of a lock, indicating that the smoothness is perfectly even from roots to tips and the lock is very soft.

IV. Results

8. The average ratings given by the expert panelists are represented in the table below:

Table II

	Lock 1 (inventive)	Lock 2 (comparative)
Tactile Smoothing	3.80 (± 0.37)	3.00 (± 0.28)

9. The results show that lock 1 treated with the flat iron (according to the present invention) is significantly smoother from roots to tips than lock 2 treated with the steam. This data also shows that lock 1 is softer from roots to tips than lock 2 treated with the steam.

10. The expert panelists also observed that lock 1 treated with the flat iron is also visually smoother than lock 2 treated with the steam.



11. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 10.03.2008.

By: 
Laurence PAUL